Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Original) Isolated nucleic acid comprising DNA having at least 95% sequence identity to a polynucleotide selected from the group consisting of:

(a) a polynucleotide having a nucleotide sequence as shown in SEQ ID NO:1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, or 23;

(b) a polynucleotide encoding a polyeptide having the amino acid sewuence as shown in SEQ ID NO:2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, or 24;

(c) a polynucleotide encoding the mature form of a polyeptide having the amino acid sequence as shown in SEQ ID NO:2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, or 24;

(d) a polynucleotide fragment of a polynucleotide as in (a), (b), or (c); and

(e) a polynucleotide having a nucleotide sequence which is complementary to the nucleotide sequence of a polynucleotide as in (a), (b), (c), or (d).

2. (Original) An isolated nucleic acid molecule encoding a polypeptide comprising DNA that hybridizes to the complement of the nucleic acid sequence that encodes LP391, LP392, LP393, LP394, LP395, LP396, LP397, LP398, LP399, LP417, LP418, LP419 or any fragment or variant thereof.

3. (Original) The isolated nucleic acid molecule of claim 2, wherein hybridization occurs under stringent hybridization and wash conditions.

4. (Amended) A vector comprising the nucleic acid molecule of ~~any of Claims 1 to 3~~ Claim 1.

5. (Original) The vector of Claim 4, wherein said nucleic acid molecule is operably linked to control sequences recognized by a host cell transformed with the vector.

6. (Original) A host cell comprising the vector of Claim 5.

7. (Original) A process for producing an LP polypeptide comprising culturing the host cell of Claim 6 under conditions suitable for expression of said LP polypeptide and recovering said LP polypeptide from the cell culture.

8. (Original) An isolated polypeptide comprising an amino acid sequence comprising about 95% sequence identity to a sequence of amino acid residues comprising LP391, LP392, LP393, LP394, LP395, LP396, LP397, LP398, LP399, LP417, LP418, or LP419 as shown in SEQ ID NO:2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, or 24, respectively.

9. (Original) An isolated polypeptide comprising a sequence of amino acid residues selected from the group consisting of:

(a) SEQ ID NO:2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, or 24;

(b) fragments of (a) sufficient to provide a binding site for an LP polypeptide antibody;

(c) extracellular domain of SEQ ID NO:2, 4, 6, 8, or 10; and

(d) variants of (a), (b), or (c).

10. (Original) An isolated polypeptide produced by the method of Claim 7.

11. (Original) A chimeric molecule comprising an LP polypeptide fused to a heterologous amino acid sequence.

12. (Original) The chimeric molecule of Claim 11, wherein said heterologous amino acid sequence is an epitope tag sequence.

13. (Original) The chimeric molecule of Claim 12, wherein said heterologous amino acid sequence is an Fc region of an immunoglobulin.

14. (Original) An antibody which specifically binds to an LP polypeptide.

15. (Original) The antibody of Claim 14, where said antibody is a monoclonal antibody.

16. (Original) The antibody of Claim 15, wherein said antibody is selected from the group consisting of a humanized antibody and a human antibody.

17. (Original) A composition comprising a therapeutically effective amount of an active agent selected from the group consisting of:

(a) an LP polypeptide;

(b) an agonist to an LP polypeptide;

(c) an antagonist to an LP polypeptide;

(d) an LP polypeptide antibody;

(e) an anti-LP polypeptide-encoding mRNA specific ribozyme; and

(f) a polynucleotide as in Claim 1, in combination with a pharmaceutically acceptable carrier.

18. (Original) A method of treating a mammal suffering from a disease, condition, or disorder associated with aberrant levels of an LP-polypeptide comprising administering a therapeutically effective amount of an LP polypeptide or LP polypeptide agonist.

19. (Original) A method of diagnosing a disease, condition, or disorder associated with aberrant levels of an LP polypeptide by: (1) culturing test cells or tissues expressing LP polypeptide; (2) administering a compound which can inhibit LP polypeptide modulated signaling; and (3) measuring the LP polypeptide-mediated phenotypic effects in the test cells or tissues.

20. (Cancelled)

21. (Cancelled)

22. (New) The antibody of Claim 16, wherein said antibody is a humanized antibody.